US005461711A

United States Patent [19]

Wang et al.

[11] Patent Number: 5,461,711

[45] Date of Patent: Oct. 24, 1995

[54] **METHOD AND SYSTEM FOR SPATIAL ACCESSING OF TIME-BASED INFORMATION**

[75] Inventors: **Weijia Wang**, Sunnyvale; **Sean M. White**, San Francisco, both of Calif.

[73] Assignee: **Interval Research Corporation**, Palo Alto, Calif.

[21] Appl. No.: **172,637**

[22] Filed: **Dec. 22, 1993**

[51] **Int. Cl.**[6] **G06F 3/02**

[52] **U.S. Cl.** **395/161**; 395/155; 395/154; 395/159; 345/156; 345/173

[58] **Field of Search** 395/155, 154, 395/161, 152, 119, 160, 159; 345/173, 156, 179, 180

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,752,836	6/1988	Blanton et al.	395/152 X
4,943,866	7/1990	Barker et al.	395/155 X
4,964,004	10/1990	Barker	345/156 X
5,109,482	4/1992	Bohrman	395/154
5,191,645	3/1993	Carlucci et al.	395/159
5,202,961	4/1993	Mills et al.	395/159
5,388,197	2/1995	Rayner	395/154
5,404,444	4/1995	Billings	395/161

Primary Examiner—Raymond J. Bayerl
Attorney, Agent, or Firm—Brooks & Kushman

[57] **ABSTRACT**

A method and system for accessing time-based information based on spatial coordinate information obtained from a user. Time-based information is mapped into a spatial representation by mapping and transforming the timing of time-based information segments to spatial coordinates. Such spatial coordinates could be either one, two, or three dimensional. With this mapping, segments of time-based information can be associated with different parts of a spatial object, a spatial representation, or different position of a spatial movement. These segments can be accessed by the user by physical inputs in such a fashion that the kinesthetic or touching memory of the user can be relied upon to re-access information and to create a sense of the whole in the information.

44 Claims, 7 Drawing Sheets